DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

2H3
Revision 19
BELL

47G-2A	47G-5
47G-2A-1	47G-3B-2
47G-3	47G-5A
47G-3B	47G-3B-2A
47G-3B-1	
47G-4	
47G-4A	

February 18, 2005

TYPE CERTIFICATE DATA SHEET NO. 2H3

This data sheet which is a part of type certificate No. 2H3 prescribes conditions and limitations under which the product for which this type certificate was issued meets the airworthiness requirements of the Civil Air Regulations.

Type Certificate Holder — Bell Helicopter Textron
Subsidiary of Textron, Inc.
Fort Worth, Texas 76101

I - Model 47-G3 PCLH (Normal Category), Approved March 17, 1960

Engine — Aircooled Motors Franklin 6VS-335-A

Fuel — 100/130 minimum grade aviation gasoline

Engine limits — Maximum continuous,
(Sea level) 34.3 in.Hg., 3200 r.p.m. (220 hp.)
(13,300 ft.) 35.0 in.Hg., 3200 r.p.m. (220 hp.)
Takeoff (2 minutes), 35.0 in.Hg., 3200 r.p.m. (225 hp.)
(See NOTE 5 for manifold pressure variation with altitude and temperature)
(See NOTE 6 for increased takeoff rating)

Carburetor & carburetor settings — Marvel MA6 (Setting 10-4206)

Rotor limits & operations engine speeds

Power Off (Rotor Rach.)		Power On (Engine Tach.)
Maximum	370	Maximum 3200 r.p.m.
Minimum	322	Minimum 3000 r.p.m. below 10,000 ft.
		Minimum 3100 r.p.m. above 10,000 ft.

Airspeed limits — S.L. to 10,000 ft. Vne = 105 m.p.h. (91.5K) with 3000 to 3200 r.p.m.
Above 10,000 ft. decrease Vne 6 m.p.h./1000 ft. with 3100 to 3200 r.p.m.

C.G. range

2650 lb.	(-3.0) to (+3.5)	(See NOTE 6 for
2350 lb.	(-3.0) to (+4.0)	increased gross
2100 lb.	(-3.0) to (+4.0)	weight C.G.

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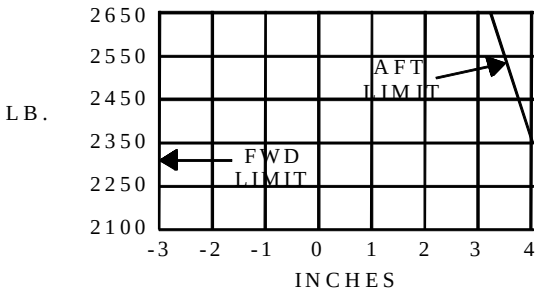
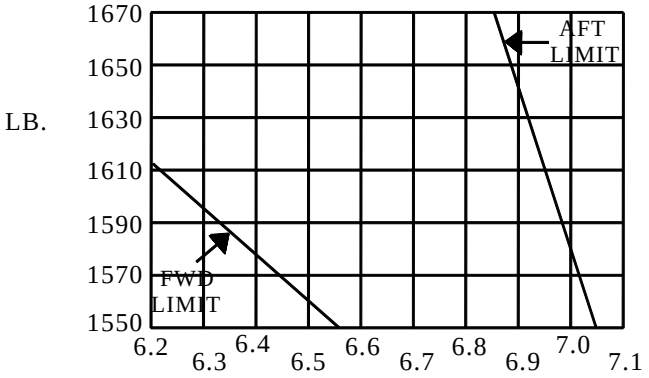


See Figure

Empty weight C.G. range range

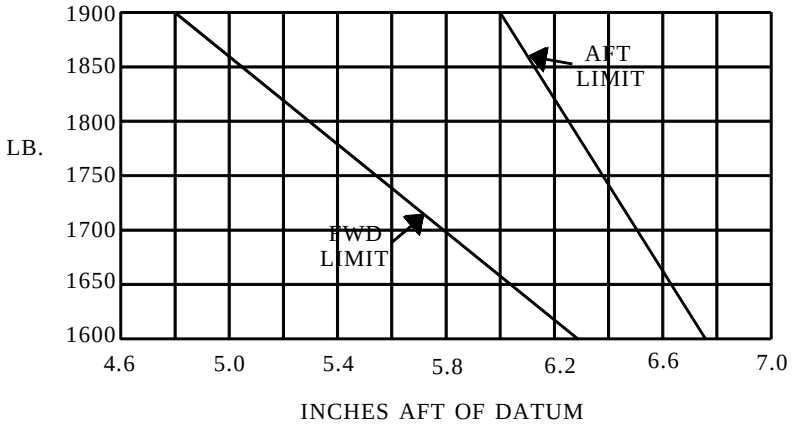


Maximum weight	2650 lbs. (See NOTE 6 for 2850 lb.)
No. of seats	3 (Pilot and 2 passengers) (-30)
Maximum baggage	See loading instructions in FAA Approved Helicopter Flight Manual.
Fuel capacity	43 gals. (+5) (Usable 41 gals.) See NOTE 1 for unusable fuel.
Oil capacity	2 gals. (+12), (Usable 1 gal.) See NOTE 1 for undrainable oil.
Rotor blade & control movements	For rigging information refer to the pertinent model Maintenance Manual
Serial Nos. eligible	2586 and up and 2554, 2555

II - Model 47G-2A 3 PCLH (Normal Category), Approved December 10, 1960

Engine	Lycoming VO-435-A1E or -A1F
Fuel	80/87 minimum grade aviation gasoline
Engine limits	Maximum continuous, (Sea level) 24.6 in.Hg., 3200 r.p.m. (220 hp.) (4300 ft.) 23.3 in.Hg., 3200 r.p.m. (220 hp.) (Straight line manifold pressure variation with altitude) Takeoff (2 minutes), 26.3 in.Hg., 3200 r.p.m. (240 hp.)
Carburetor & carburetor setting	Marvel-Schebler MA4-5AA (10-4025-11)

Rotor limits & operational engine speeds	Power Off (Rotor Tach.)		Power On (Engine Tach.)
	Maximum	370	Maximum 3200 r.p.m.
	Minimum	333	Minimum 3000 r.p.m. below 10,000 ft.
Airspeed limits	S.L. to 6,000 ft., 105 m.p.h. (91.5K) 5 m.p.h. (4K) reduction per 1000 ft. above 6000 ft.		
C.G. range	(-3.0) to (+4.0)		
Empty wt. C.G. range	See figure.		



Maximum weight	2850 lbs.
No. of seats	3 (Pilot and 2 passengers) (-30)
Maximum baggage	See loading instructions in FAA Approved Helicopter Flight Manual.
Fuel capacity	43 gals. (+5) (Usable 41 gals.) See NOTE 1 for unusable fuel.
Oil capacity	3 gals. (+12), (Usable 1 gal.) See NOTE 1 for undrainable oil.
Rotor blade & control movements	For rigging information refer to the pertinent model Maintenance Manual.
Serial Nos. eligible	2657 and up (See NOTE 7 for conversion from 47G-2); Great Southwest S/N 23.

III - Model 47G-3B 3 PCLH (Normal Category), Approved May 24, 1961

Engine	Lycoming TVO-435 A1A
Fuel	100/130 minimum octane grade aviation gasoline
Engine limits	Maximum continuous, (Sea level to 20,000 ft.) 26.8 in.Hg., 3200 r.p.m. (220 hp.) Takeoff (2 min.) (Sea level to 15,000 ft.) 31.1 in.Hg., 3200 r.p.m. (260 hp.) (See NOTE 8 for power and manifold pressure variation with altitude and temperature)
Carburetor & carburetor settings	Marvel-Schebler MA-6 (Setting No. 10-4438) or Marvel Schebler MA-6AA (Setting No. 10-4438-1)

Rotor limits & operational engine kimits

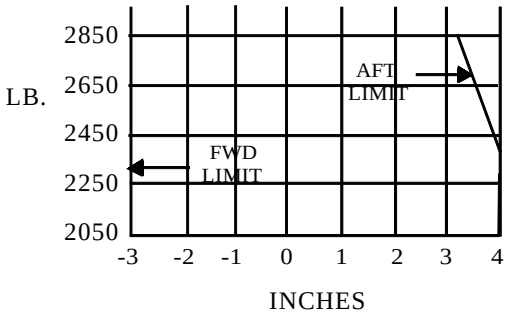
Power Off (Rotor Tach.)		Power On (Engine Tach.)
Maximum	370	Maximum 3200 r.p.m.
Minimum	322	Minimum 3000 below 10,000 ft.
		Minimum 3100 above 10,000 ft.

Airspeed limits

S.L. to 10,000 ft. Vne = 105 m.p.h. (91.5K) with 3000 to 3200 r.p.m.
Above 10,000 ft. decrease Vne 7 mph./1000 ft. to 15,000 ft. (70 mph)
Above 15,000 ft. decrease Vne 5 mph/1000 ft. to 20,000 ft. (45 mph)
R.p.m. range 10,000 ft. to 20,000 ft.: 3100 to 3200.

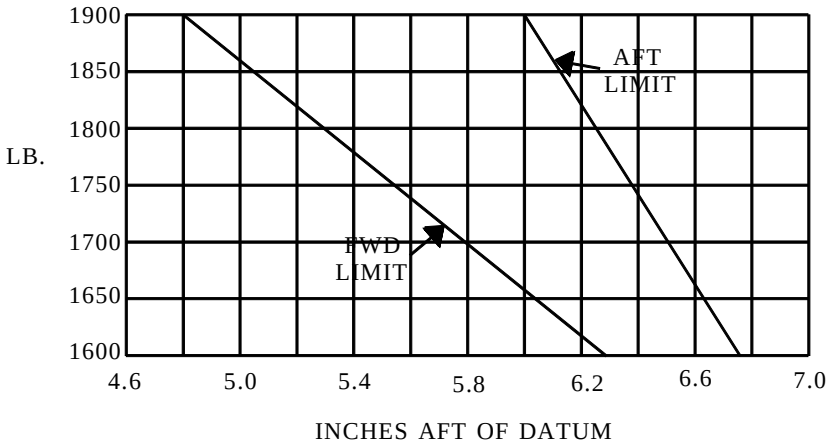
C.G. range

2850 lb. (-3.0) to (+3.2)
2300 lb. (-3.0) to (+4.0)
2100 lb. (-3.0) to (+4.0)



Empty weight C.G. range

See Figure.



Maximum weight

2850 lbs.

No. of seats

3 (Pilot and 2 passengers) (-30)

Maximum baggage

See loading instructions in FAA Approved Helicopter Flight Manual.

Fuel capacity

43 gals. (+5) (usable 41 gals.) See NOTE 1 for unusable fuel.

Oil capacity

4.25 gals. (+12) (usable 2.5 gals.) See NOTE 1 for undrainable oil.

Rotor blade and control movements

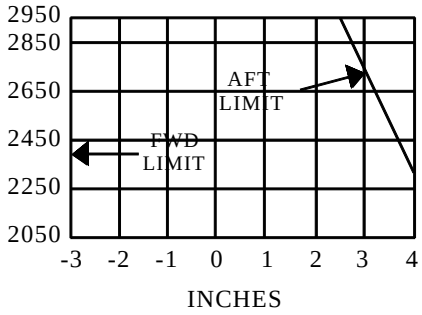
For rigging information refer to pertinent model Maintenance Manual.

Serial Nos. eligible

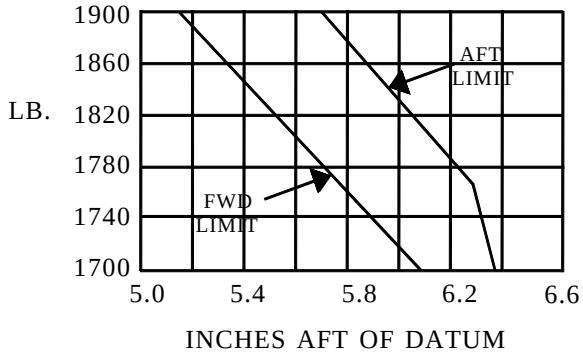
2634, 2638, 2641, and up.

IV - Model 47G-3B-1 **3 PCLM (Normal Category), Approved January 25, 1963**

Engine	Lycoming TVO-435-B1A or -B1B (See NOTE 11 for installation of Lycoming TVO-345-D1A engine)
Fuel	100/130 minimum grade aviation gasoline
Engine limits	Maximum continuous, (Sea level to 19,400 ft.) 26.8 in.Hg., 3200 r.p.m. (220 hp.) Takeoff (2 min.) (5 min. takeoff power eligible with Flight Manual Supplement dated February 3, 1966) (Sea level to 8,000 ft.) 32.8 in.Hg., 3200 r.p.m. (270 hp.) (See NOTE 9 for power and manifold pressure variation with altitude and temperature)
Carburetor & carburetor settings	Marvel-Schebler MA-6 (Setting 10-4438) or Marvel Schebler MA-6AA (Setting 10-4438-1)
Rotor limits & operational engine limits	Power Off (Rotor Tach.) Maximum 370, Minimum 322 Power On (Engine Tach.) Maximum 3200 r.p.m. Minimum 3000 below 10,000 ft. Minimum 3100 above 10,000 ft.
Airspeed limits	S.L. to 10,000 ft. Vne = 105 m.p.h. (91.5K) with 3000 to 3200 r.p.m. Above 10,000 ft. decrease Vne 7 mph./1000 ft. to 15,000 ft. (70 mph) Above 15,000 ft. decrease Vne 5 mph/1000 ft. to 20,000 ft. (45 mph) R.p.m. range 10,000 ft. to 20,000 ft.: 3100 to 3200.
C.G. range	2950 lb. (-3.0) to (+2.5) 2300 lb. (-3.0) to (+4.0) 2100 lb. (-3.0) to (+4.0)



Empty weight C.G. range.	See Figure.



Maximum weight	2950 lbs.
No. of seats	3 (Pilot and 2 passengers) (-30)

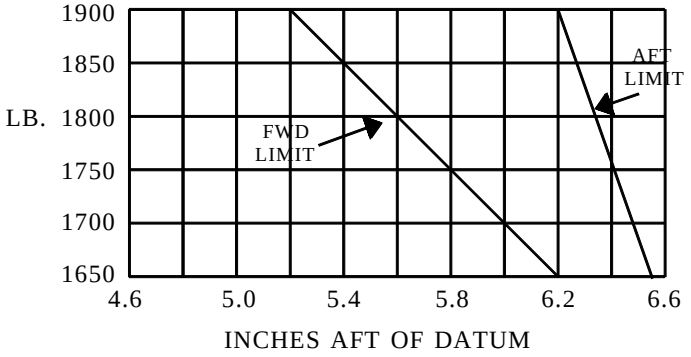
Maximum baggage	See loading instructions in FAA Approved Helicopter Flight Manual.
Fuel capacity	61.6 gals. (+5) (usable 57.5 gals.) (See NOTE 1 for unusable fuel.
Oil capacity	4.25 gals. (+12) (usable 2 gals.) See NOTE 1 for undrainable oil.
Rotor blade and control movements	For rigging information refer to the pertinent model Maintenance Manual.
Serial Nos. eligible	2754, 2797, and up.

V - Model 47G-2A-1 3 PCLH (Normal Category), Approved December 28, 1962

Engine	Lycoming VO-435-A1E or A1F
Fuel	80/87 minimum grade aviation gasoline
Engine limits	Maximum continuous, (Sea level) 24.6 in.Hg., 3200 r.p.m. (220 hp.) (4300 ft.) 23.3 in.Hg., 3200 r.p.m. (220 hp.) (Straight line manifold pressure variation with altitude) Takeoff (2 minutes), 26.3 in.Hg., 3200 r.p.m. (240 hp.)
Carburetor & carburetor setting	Marvel-Schebler MA-4-5AA (10-4025-11)

Rotor limits & operational engine limits	Power Off (Rotor Tach.)	Power On (Engine Tach.)
	Maximum 370	Maximum 3200 r.p.m.
	Minimum 333	Minimum 3000 r.p.m.

Airspeed limits	S.L. to 6000 ft., 105 m.p.h. (91.5K) 5 m.p.h. (4K) reduction per 1000 ft. above 6000 ft.
C.G. range	(-3.0) to (+4.0)
Empty weight C.G. range	See Figure.



Maximum weight	2850 lbs.
No. of seats	3 (Pilot and 2 passengers) (-30)
Maximum baggage	See loading instructions in FAA Approved Helicopter Flight Manual.
Fuel capacity	61.6 gals. (+5) (usable 57.5 gals.) See NOTE 1 for unusable fuel.

Oil capacity	3 gals. (+12) (usable 1.5 gals.) See NOTE 1 for undrainable oil.
Rotor blade and control movements	For rigging information refer to the pertinent model Maintenance Manual.
Serial Nos. eligible	2857 and up.

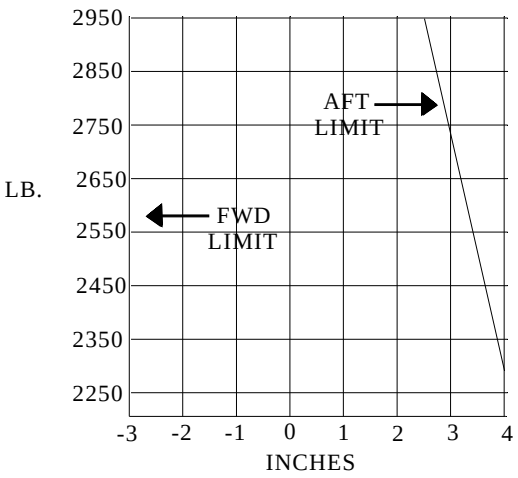
VI - Model 47G-4 3 PCLH (Normal Category), Approved January 3, 1964

Engine	Lycoming VO-540-B1B3
Fuel	80/87 minimum grade aviation gasoline
Engine limits (See Flight Manual for manifold pressure variation with altitude and temperature)	Maximum continuous, (Sea level) 20.6 in.Hg., 3200 r.p.m. (220 hp.) (9500 ft.) 19.3 in.Hg., 3200 r.p.m. (220 hp.) Takeoff (2 minutes) (Sea level) 23.6 in.Hg., 3200 r.p.m. (260 hp.)
Carburetor & carburetor settings	Marvel-Schebler MA-6AA, Setting No. 10-4218 or 10-4975

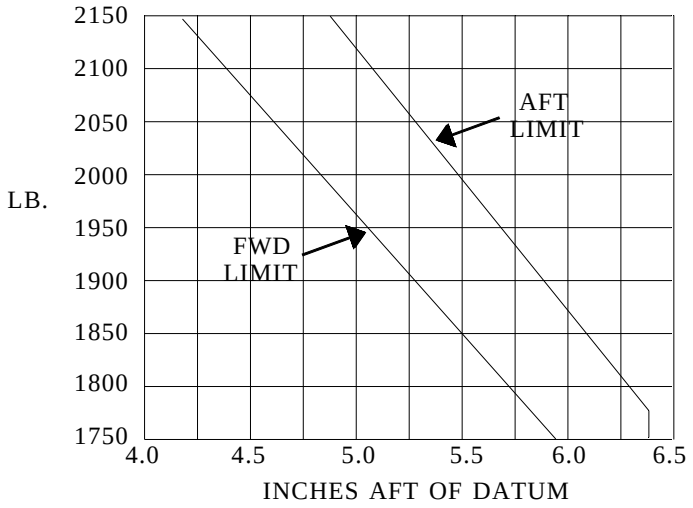
Rotor limits & operational engine speeds

	Power Off (Rotor Tach.)	Power On (Engine Tach.)
Maximum	370	Maximum 3200 r.p.m.
Minimum	333	Minimum 3000 r.p.m.

Airspeed limits	S.L. to 6000 ft., 105 m.p.h. (91.5K) 5 m.p.h. (4K) reduction per 1000 ft. above 6000 ft.
C.G. range	2950 lb. (-3.0) to (+2.5) 2300 lb. (-3.0) to (+4.0) 2200 lb. (-3.0) to (+4.0)



Empty weight C.G. range	See Figure.



Maximum weight	2950 lbs.
No. of seats	3 (Pilot and 2 passengers) (-30)
Maximum baggage	See loading instructions in FAA Approved Helicopter Flight Manual.
Fuel capacity	61.6 gals. (+5) (usable 57.5 gals.) (See NOTE 1 for unusable fuel.
Oil capacity	3 gals. (+12) (usable 1.5 gals.) See NOTE 1 for undrainable oil.
Rotor blade and control movements	For rigging information refer to pertinent model Maintenance Manual.
Serial Nos. eligible	2864, 3133, and up.

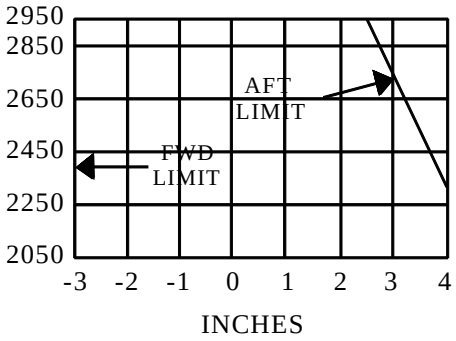
VII - Model 47G-4A **3 PCLH (Normal Category), Approved January 3, 1966**

Engine	Lycoming VO-540-B1B3
Fuel	80/87 minimum grade aviation gasoline
Engine limits (Standard day temperature at carburetor inlet)	Maximum continuous, (Sea level) 20.6 in.Hg., 3200 r.p.m. (220 hp.) (9500 ft.) 19.3 in.Hg., 3200 r.p.m. (220 hp.) Takeoff (5 minutes) (Sea level) 25.3 in.Hg., 3200 r.p.m. (280 hp.) (See Flight Manual for manifold pressure variation with altitude and temperature.)
Carburetor & carburetor setting	Marvel-Schebler MA-6AA, Setting No. 10-4218 or 10-4975

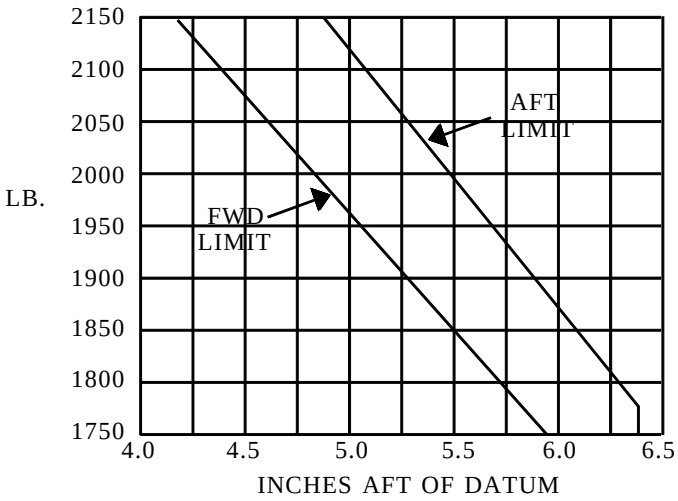
Rotor limits & operational engine speeds

Power Off (Rotor Tach.)		Power On (Engine Tach.)
Maximum	370	Maximum 3200 r.p.m.
Minimum	333	Minimum 3000 r.p.m.

Airspeed limits	S.L. to 6000 ft., 105 m.p.h. (91.5K) 5 m.p.h. (4K) reduction per 1000 ft. above 6000 ft.
C.G. range	2950 lb. (-3.0) to (+2.5) 2300 lb. (-3.0) to (+4.0) 2200 lb. (-3.0) to (+4.0)



Empty weight C.G. range — See Figure



Maximum weight	2950 lbs.
No. of seats	3 (Pilot and 2 passengers) (-30)
Maximum baggage	See loading instructions in FAA Approved Helicopter Flight Manual.
Fuel capacity	61.6 gals. (+5) (usable 57.5 gals.) See NOTE 1 for unusable fuel.
Oil capacity	3 gals. (+12) (usable 1.5 gals.) See NOTE 1 for undrainable oil.
Rotor blade and control movements	For rigging information refer to pertinent model Maintenance Manual.
Serial Nos. eligible	7501 and up.

VIII - Model 47G-5 **2 PCLH (Normal Category), Approved January 21, 1966**

Engine: Lycoming VO-435-B1A

Fuel: 100/130 minimum grade aviation gasoline

Engine limits (Standard day temperature at carburetor inlet):
Maximum continuous,
(Sea level) 24.1 in.Hg., 3200 r.p.m. (220 hp.)
(5300 ft.) 22.9 in.Hg., 3200 r.p.m. (220 hp.)
Takeoff (5 minutes)
(Sea level) 27.7 in.Hg., 3200 r.p.m. (260 hp.)
(See Flight Manual for manifold pressure variation with altitude and temperature.)

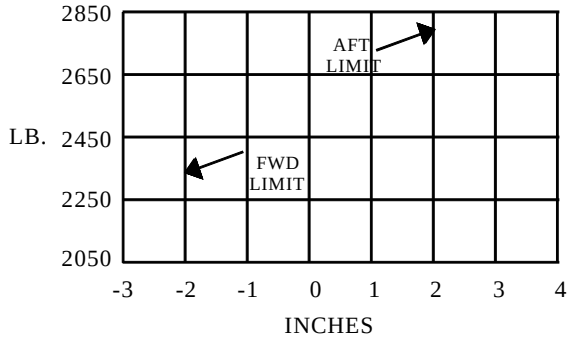
Carburetor & carburetor setting: Marvel-Schebler MA4-5AA (10-4025-12)

Rotor limits & operational engine speeds:

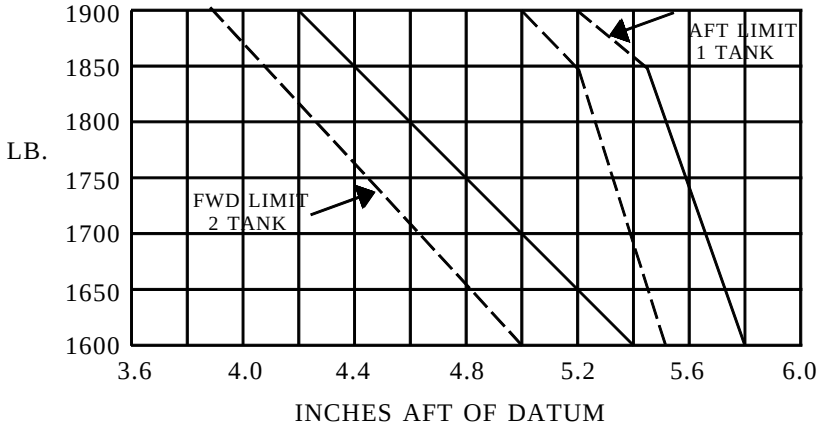
	Power Off (Rotor Tach.)	Power On (Engine Tach.)
Maximum	370	Maximum 3200 r.p.m.
Minimum	333	Minimum 3000 r.p.m.

Airspeed limits: S.L. to 6000 ft., 90 m.p.h. (78K)
Above 6000 ft. decrease Vne 4 m.p.h. (35K) per 1000 ft.

C.G. range:
2850 lb. (-2.0) to (+2.0)
2350 lb. (-2.0) to (+3.0)
2100 lb. (-2.0) to (+3.0)
Straight line variation between points given.



Empty weight C.G. Range: See Figure



Maximum weight: 2850 lbs.

No. of seats	2 (Pilot and 1 passenger) (-30)
Maximum baggage	See loading instructions in FAA Approved Helicopter Flight Manual.
Fuel capacity	28 gals. (+5) (usable 26 gals.) See NOTE 1 for unusable fuel.
Oil capacity	3 gals. (-42) (usable 1.5 gals.) See NOTE 1 for undrainable oil.
Rotor blade and control movements	For rigging information refer to pertinent model Maintenance Manual.
Serial Nos. eligible	7801 and up.

IX - Model 47G-3B-2 3 PCLH (Normal Category), Approved January 17, 1968

Engine	Lycoming TVO-435-G1A
Fuel	100/130 minimum grade aviation gasoline
Engine limits	Maximum continuous, (Sea level to 20,000 ft.) 26.6 in.Hg., 3200 r.p.m. (220 hp.) Takeoff (5 minutes) (Sea level to 4,000 ft.) 33.5 in.Hg., 3200 r.p.m. (280 hp.) (See NOTE 12 for power and manifold pressure variation with altitude and temperature.)
Carburetor & carburetor settings	Marvel-Schebler MA-6AA (setting 10-4438-1)

Rotor limits & operational engine limits

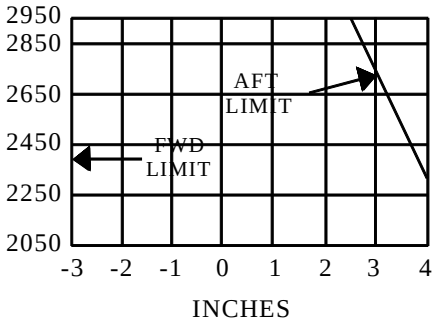
Power Off (Rotor Tach.)		Power On (Engine Tach.)
Maximum	370	Maximum 3200 r.p.m.
Minimum	322	Minimum 3000 r.p.m.
		Minimum 3100 above 10,000 ft.

Airspeed limits

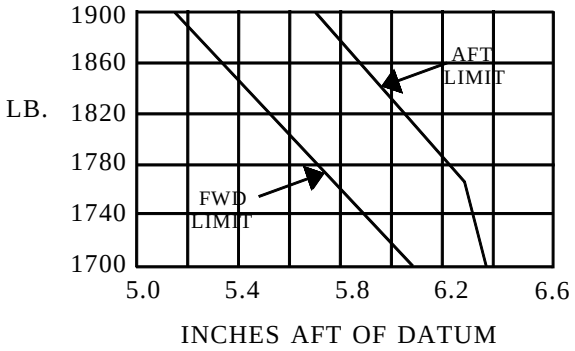
S.L. to 10,000 ft., Vne - 105 mph (91.5K) with 3000 to 3200 r.p.m.
Above 10,000 ft. decrease Vne 7 mph/1000 ft. to 15,000 ft. (70 mph)
Above 15,000 ft. decrease Vne 5 mph/1000 ft. to 20,000 ft. (45 mph)
R.p.m. range 10,000 ft. to 20,000 ft.: 3100 to 3200.

C.G. range

2950 lb.	(-3.0) to (+2.5)
2300 lb.	(-3.0) to (+4.0)
2100 lb.	(-3.0) to (+4.0)



Empty weight C.G. range See Figure

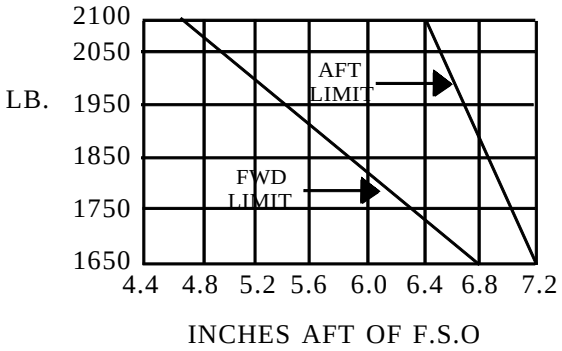


Maximum weight	2950 lbs.
No. of seats	3 (Pilot and 2 passengers) (-30)
Maximum baggage	See loading instruction in FAA Approved Helicopter Flight Manual.
Fuel capacity	61.6 gals. (+5) (usable 57.5 gals.) See NOTE 1 for unusable fuel.
Oil capacity	4.25 gals. (+12) (usable 2.5 gals.) See NOTE 1 for undrainable oil.
Rotor blade and control movements	For rigging information refer to pertinent model Maintenance Manual.
Serial Nos. eligible	6606, 6674, and up.

X - Model 47G-5A 3 PCLH (Normal Category), Approved September 20, 1971

Engine	Lycoming VO-435-B1A		
Fuel	100/130 minimum grade aviation gasoline		
Engine limits (Standard day temperature at carburetor inlet)	Maximum continuous, (Sea level) 24.1 in.Hg., 3200 r.p.m. (220 hp.) (5300 ft.) 22.9 in.Hg., 3200 r.p.m. (220 hp.) Takeoff (5 minutes) (Sea level) 27.7 in.Hg., 3200 r.p.m. (260 hp.) (See Flight Manual for manifold pressure variation with altitude and temperature.)		
Carburetor & carburetor setting	Marvel-Schebler MA4-5AA (10-4025-12)		
Rotor limits & operational engine limits	Power Off (Rotor Tach.)		Power On (Engine Tach.)
	Maximum	370	Maximum 3200 r.p.m.
	Minimum	333	Minimum 3000 r.p.m.
Airspeed limits	S.L. to 6000 ft., 105 m.p.h. (91.5K) 5 m.p.h. (4K) reduction per 1000 ft. above 6000 ft.		
C.G. range	(-3.0) to (+4.0)		

Empty weight C.G. range	See figure



Maximum weight	2850 lbs.
No. of seats	3 (Pilot and 2 passengers) (-30)
Maximum baggage	See loading instruction in FAA Approved Helicopter Flight Manual.
Fuel capacity	61.6 gals. (+5) (usable 57.5 gals.) See NOTE 1 for unusable fuel.
Oil capacity	3 gals. (-4.2) (usable 1.5 gals.) See NOTE 1 for undrainable oil.
Rotor blade and control movements	For rigging information refer to pertinent model Maintenance Manual.
Serial Nos. eligible	25051 and up.

XI - Model 47G-3B-2A 3 PCLH (Normal Category), Approved February 22, 1972.

Engine	Lycoming TVO-435-F1A
Fuel	100/130 minimum grade aviation gasoline
Engine limits	Maximum continuous, (Sea level to 20,000 ft.) 26.6 in.Hg., 3200 r.p.m. (220 hp.) Takeoff (5 minutes) (Sea level to 4000 ft.) 33.5 in.Hg., 3200 r.p.m. (280 hp.) (See NOTE 12 for power and manifold pressure variation with altitude and temperature)
Carburetor & carburetor setting	Marvel-Schebler MA-6AA (setting 10-4438-1)

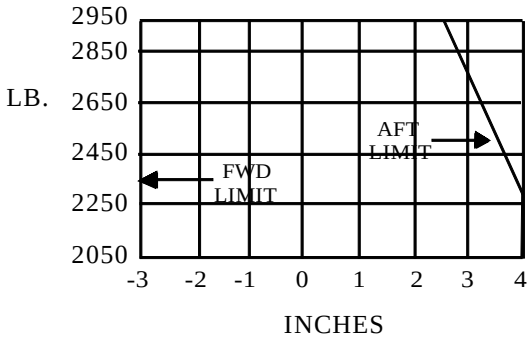
Rotor limits & operational engine limits

Power Off (Rotor Tach.)		Power On (Engine Tach.)
Maximum	370	Maximum 3200 r.p.m.
Minimum	322	Minimum 3000 r.p.m. below 10,000 ft.
		Minimum 3100 r.p.m. above 10,000 ft.

Airspeed limits	S.L. to 10,000 ft., Vne - 105 m.p.h. (91.5K) with 3000 to 3200 rpm Above 10,000 ft. decrease Vne 7 mph/1000 ft. to 15,000 ft. (70 mph) Above 15,000 ft. decrease Vne 5 mph/1000 ft. to 20,000 ft. (45 mph) R.p.m. range 10,000 ft. to 20,000 ft.: 3100 to 3200.

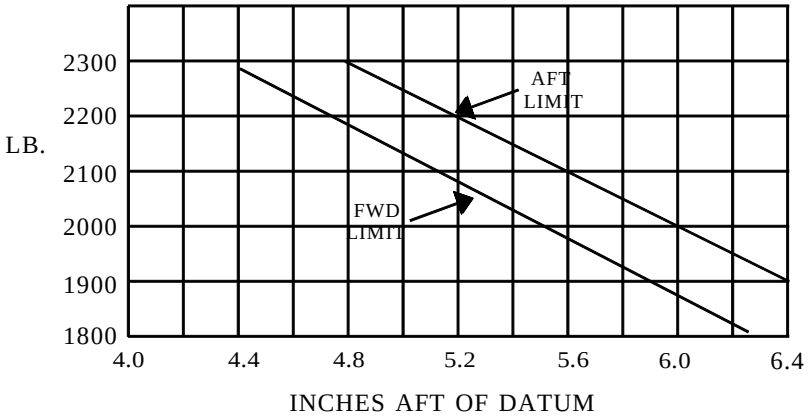
C.G. range

2950 lb. (-3.0) to (+2.5)
2300 lb. (-3.0) to (+4.0)
2100 lb. (-3.0) to (+4.0)



Empty weight C.G. range

See Figure



Maximum weight

2950 lbs. (See NOTE 14 for external cargo limitations)

No. of seats

3 (Pilot and 2 passengers) (-30)

Maximum baggage

See loading instruction in FAA Approved Helicopter Flight Manual.

Fuel capacity

61.6 gals. (+5) (usable 57.5 gals.) See NOTE 1 for unusable fuel.

Oil capacity

3 gals. (-4.2) (usable 1.5 gals.) See NOTE 1 for undrainable oil.

Rotor blade and control movements

For rigging information refer to pertinent model Maintenance Manual.

Serial Nos. eligible

6832 and up.

DATA PERTINENT TO ALL MODELS

Datum

Station "O" Centerline of weld cluster just forward of leveling lugs.
Leveling lugs lower left-hand longeron aft of mast and adjacent cross tube.

Certification basis

CAR 6 effective December 20, 1956, Amendments 6-1, 6-2, 6-3, and 6-4.
Type Certificate No. 2H3 issued March 17, 1960.
Date of application for Type Certificate of November 24, 1959.
Exemption No. 70 for 47G-3.

Production basis

Production Certificate No. 100.

Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see certification basis) must be installed in the helicopter for certification. In addition, the following items of equipment are required:

47G-3

(a) FAA Approved Helicopter Flight Manual dated March 17, 1960, or FAA Approved Helicopter Flight Manual dated January 11, 1961. (Required with increased gross weight and horsepower in accordance with NOTE 6.)

(b) AN5795-6 carburetor air and filter air temperature indicator 1.5 lbs. (-52).

47G-2A

(a) FAA Approved Helicopter Flight Manual dated December 7, 1960.

47G-3B

(a) FAA Approved Helicopter Flight Manual dated May 24, 1961, and Revision 3 dated May 24, 1963.

47G-3B-1

(a) FAA Approved Helicopter Flight Manual dated January 25, 1963.

47G-2A-1

(a) FAA Approved Helicopter Flight Manual dated December 27, 1962.

47G-4

(a) FAA Approved Helicopter Flight Manual dated October 15, 1963.

47G-4A

(a) FAA Approved Helicopter Flight Manual dated December 28, 1965.

47G-5

(a) FAA Approved Helicopter Flight Manual dated January 21, 1966.

47G-3B-2

(a) FAA Approved Helicopter Flight Manual dated December 13, 1967.

47G-5A

(a) FAA Approved Helicopter Flight Manual dated September 14, 1971.

47G-3B-2A

(a) FAA Approved Helicopter Flight Manual dated February 11, 1972.

NOTE 1. Current weight and balance report, including list of equipment included in certificated empty weight, and loading instructions when necessary, must be in each helicopter at the time of original certification and at all times thereafter except in the case of operators having an approved weight control system.

The certificated empty weight and corresponding center of gravity location must include the following:

Model 47G-3	Undrainable oil	8 lbs.	(+12)	(Not included in oil capacity)
	Unusable fuel	11.7 lbs.	(+ 5)	(Included in fuel capacity)
Model 47G-2A	Undrainable oil	2.3 lbs.	(+15)	(Included in oil capacity)
	Unusable fuel	11.7 lbs.	(+ 5)	(Included in fuel capacity)
Model 47G-3B	Undrainable oil	6 lbs.	(+15)	(Included in oil capacity)
	Unusable fuel	11.7 lbs.	(+ 5)	(Included in fuel capacity)
Model 47G-3B-1 Model 47G-3B-2	Undrainable oil	6 lbs.	(+15)	(Included in oil capacity)
	Unusable fuel	11.7 lbs.	(+ 5)	(Included in fuel capacity)

Model 47G-2A-1	Undrainable oil	2.3 lbs.	(+15)	(Included in oil capacity)
	Unusable fuel	11.7 lbs.	(+ 5)	(Included in fuel capacity)
Model 47G-4	Undrainable oil	2.3 lbs.	(+15)	(Included in oil capacity)
	Unusable fuel	11.7 lbs.	(+ 5)	(Included in fuel capacity)
Model 47G-4A	Undrainable oil	2.3 lbs.	(+15)	(Included in oil capacity)
	Unusable fuel	11.7 lbs.	(+ 5)	(Included in fuel capacity)
Model 47G-5 Model 47G-5A Model 47G-3B-2A	Undrainable oil	3.4 lbs.	(-4.2)	(Included in oil capacity)
	Unusable fuel	11.7 lbs.	(+ 5)	(Included in fuel capacity)

NOTE 2. The following placard must be displayed on the instrument panel in full view of the pilot: "THIS HELICOPTER MUST BE OPERATED IN COMPLIANCE WITH THE OPERATING LIMITATIONS SPECIFIED IN THE FAA APPROVED FLIGHT MANUAL."
All placards required in the approved helicopter flight manual must be installed in appropriate locations.

NOTE 3. The retirement times of critical parts are listed in the following tables and are also listed in Section 1 of the pertinent Model Maintenance and Overhaul Instructions. These limitations may not be increased without FAA engineering approval.

Model 47G-3 at 2650 lbs. Gross Weight

Description	Part Number	Service Life Hours
Engine Mount	47-612-171-115 or -123	2500
Grips	47-120-252-1, -7, -11, 113, -115	1200
Grips	47-120-252-5	300
Tail Rotor Blades	47-642-102-27 & higher dash numbers	600
Tail Rotor Blade	47-642-117-1	2500
Tail Rotor Pitch Change Shaft Bearings	S3K or S3S (47-640-069-1 & -3)	600
Fan Belts (Matched Sets)	47-661-041-1	600
Tail Rotor Yoke	47-641-126-5	2500
Main Rotor Gimbel Ring	47-120-014-1 through -21	1200
	47-120-014-23	4800

47G-3 at 2850 lbs. Gross Weight and 240 Takeoff horsepower per NOTE 6 and all other 47's

Description	Part Number	Service Life Hours
Main Rotor Blade**	47-110-250-23 (Tip Weighted)	5000
Main Rotor Blade	47-110-250-11 or -21	5000
Grips	47-120-252-1, -7, -11, -113, -115	1200
Grips	47-120-252-5	300
Drag Brace	47-110-372-1	2500
Pitch Horn	47-120-126-5	5000
Yoke	47-120-177-1	5000
Gimbel Ring Assy	47-120-014-1 through -21	1200
Gimbel Ring Assy	47-120-014-23	4800
Scissors Arm Assy	47-150-249-5	5000
Collective Sleeve Assy	47-150-117-13	5000
Mount*	47-612-171-115 or -123 all dash numbers	2500
Tail Rotor Blades	47-642-102 all dash numbers	AD 60-10-4
Tail Rotor Pitch Change Shaft Bearings	47-640-069-1 and -3 (S3K or S3S)	600
Tail Rotor Blades	47-642-117-1	2500
Tail Rotor Yoke	47-641-126-5	2500
Fan Belts (Matched Sets)	47-661-041-1 and -3	600
Shear Screws (47G-4 only)	47-620-485-9	

***Tip Weight Rotor used on 47G-3B-1, 47G-3B-2, 47G-3B-2A, 47G-4, and 47G-4A at 2950 lbs. G.W.*
**The 47-612-171-115 engine mount is not eligible on 47G-3B-2A.*

NOTE 4. Information essential for proper maintenance is contained in the appropriate model Bell Helicopter Textron Maintenance or Overhaul Manual.

NOTE 5. The following chart indicates the limiting manifold pressures at the altitude and temperatures shown for which the Model 47G-3 helicopter has been certificated.

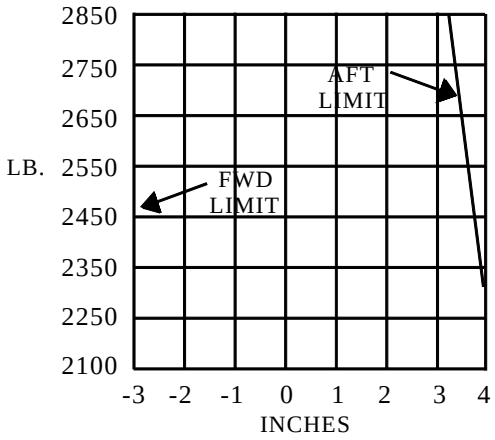
	MAXIMUM PRESSURE LIMITS - 3200 R.P.M.								
	MAXIMUM CONTINUOUS POWER					225 BHP (2 MIN. LIMIT)			
PRESS.	FILTER AIR TEMPERATURE °C					FILTER AIR TEMPERATURE °C			
ALT. FT.	-25	-5	+15	+35	+46	-25	-5	+15	+20
0	32.1	33.1	34.2	35.0	35.0	32.6	33.8	34.7	35.0
2000	31.6	32.7	33.9	34.7	35.0	32.2	33.4	34.4	34.7
4000	31.5	32.4	33.9	34.8	34.3	32.0	33.2	34.3	34.7
6000	31.6	32.6	34.0	35.0	-	32.2	33.5	34.6	34.9
8000	31.9	33.1	34.3	33.3	-	32.7	33.9	35.0	-
10000	32.5	33.7	34.8	30.5	-	33.2	34.4	-	-
12000	33.3	34.4	34.0	28.0	-	33.8	-	-	-
14000	33.8	33.9	31.1	25.7	-	-	-	-	-
16000	31.3	32.4	28.4	23.5	-	-	-	-	-
18000	29.2	30.1	26.0	22.5	-	-	-	-	-
20000	27.3	27.9	23.6	19.5	-	-	-	-	-

NOTE 6. Model 47G-3 helicopters are eligible for increased takeoff horsepower and gross weight as shown below when engine and helicopter markings are revised in accordance with Bell Service Memo No. 152, Revision A, and when equipped with FAA Approved Helicopter Flight Manual dated January 11, 1961.

Engine Limits Takeoff (2 minutes), 36.3 in.Hg., 3200 r.p.m. (240 hp.)
The following chart indicates the limiting manifold pressure at the altitude and temperature shown:

	MANIFOLD PRESSURE LIMITS - 3200 R.P.M.								
	MAXIMUM CONTINUOUS POWER					TAKEOFF PWR. (2 MIN. LIMIT)			
PRESS.	FILTER AIR TEMPERATURE °C					FILTER AIR TEMPERATURE °C			
ALT. FT.	-25	-5	+10	+30	+45	-25	-5	+15	+35
0	32.1	33.1	33.8	34.5	35.4	34.5	35.2	36.2	36.3
2000	31.6	32.7	33.6	34.5	35.4	34.2	35.3	36.3	36.3
4000	31.5	32.2	33.6	34.6	32.9	34.2	35.5	36.3	36.3
6000	31.6	32.6	33.9	35.0	30.4	34.4	35.9	36.3	35.9
8000	31.9	33.1	34.4	32.8	28.0	34.9	36.3	36.3	-
10000	32.5	33.7	35.1	30.0	25.7	35.7	36.3	36.3	-
12000	33.1	34.4	33.4	27.7	23.4	34.7	36.3	-	-
14000	32.7	33.9	30.5	25.6	-	-	-	-	-
16000	30.8	32.0	28.2	23.5	-	-	-	-	-
18000	29.2	30.3	26.2	-	-	-	-	-	-
20000	27.8	27.9	24.2	-	-	-	-	-	-

C.G. range 2850 lb. (-3.0) to (+3.3)
2350 lb. (-3.0) to (+4.0)
2100 lb. (-3.0) to (+4.0)



Maximum weight 2850 lb.

NOTE 7. Bell Model 47G-2 helicopters, serial numbers 1459 through 1641, 1957 through 2476, 2556 through 2559, and 2560 through 2570 are eligible for conversion to a configuration similar to the Model 47G-2A when modified in accordance with Bell Service Instruction No. 384SI. Model 47G-2A Helicopter Flight Manual dated December 10, 1960, is applicable and required with this conversion. Name Plate Requirements: The conversion plate furnished by Bell Helicopter Company should be permanently attached next to and just aft of the manufacturer's identification plate.

NOTE 8. Bell Model 47G-3B. Horsepower available corresponding to the manifold pressure of 26.8 and 31.1 listed under engine limits will vary with altitude with 220 and 260 horsepower as maximum, respectively. This variation is nonlinear. (See Lycoming Drawing 12814). Manifold pressure may be adjusted as prescribed in the Helicopter Flight Manual to correct for nonstandard ambient temperatures and to maintain takeoff horsepower above 10,000 feet. Maximum cumulative manifold pressure is 34.5 in.Hg.

NOTE 9. Bell Model 47G-3B-1 with Lycoming TVO-435-B1A or -B1B engines. Horsepower available corresponding to the manifold pressure of 26.8 and 32.8 in Hg. listed under engine limits will vary with altitude with 220 and 270 horsepower as maximums, respectively. This variation is nonlinear. Manifold pressure may be adjusted as prescribed in the Helicopter Flight Manual to correct for nonstandard ambient temperature and to maintain takeoff horsepower above 8000 feet. Maximum cumulative manifold pressure is 36.0 in.Hg.

NOTE 10. Bell Model 47G-5 is a 3 PCLH (Normal Category) helicopter when Synchronized Elevator Kit P/N 47-267-485 is installed. The operational limits specified in the FAA Approved Helicopter Flight Manual Supplement dated January 21, 1966, are applicable. See Figure 1-5 of Section I, Model 47G-5 Maintenance and Overhaul Instructions, for empty weight c.g. range.

NOTE 11. Lycoming engine Model TVO-435-D1A is eligible in helicopter Model 47G-3B-1 when installed in accordance with Bell Service Instruction 411. The following limits apply:
Maximum continuous,
(Sea level to 20,000) 26.6 in.Hg., 3200 r.p.m. (220 hp.)
Takeoff (5 minutes)
(Sea level to 5000 ft.) 32.2 in.Hg., 3200 r.p.m. (270 hp.)
Horsepower available corresponding to the manifold pressures of 26.6 and 32.2 listed above will vary with altitude with 220 and 270 horsepower as maximums, respectively. This variation is nonlinear. (See Lycoming Drawing 13023-A). Manifold pressure may be adjusted as prescribed in the Helicopter Flight Manual to correct for nonstandard ambient temperatures and to maintain takeoff horsepower above 5,000 feet. Maximum cumulative manifold pressure is 37.0 in.Hg.
Carburetor; Marvel Schebler MA6-AA
Carburetor Parts List Setting: 10-4438-1

NOTE 12. Bell Model 47G-3B-2 with Lycoming TVO-435-G1A engine. Horsepower available corresponding to the manifold pressures of 26.6 and 33.5 in.Hg. listed under engine limits will vary with altitude with 220 and 280 horsepower as maximums, respectively. This variation is nonlinear. Manifold pressure may be adjusted as prescribed in the Helicopter Flight Manual to correct for nonstandard ambient temperature and to maintain takeoff horsepower above 4000 feet. Maximum cumulative manifold pressure is 37.0 in.Hg.

NOTE 13. Prior to civil certification, the military Model TH-13T helicopters must be modified in accordance with Bell Report No. 47-947-017, as revised May 27, 1968.

NOTE 14. Model 47G-3B-2A helicopters equipped with the external cargo sling installed in accordance with Bell Drawing 47-706-660 meet the structural and design requirements of the certification basis, provided the weight in excess of normal category gross weight is not imposed on the landing gear, when operated at 3200 pounds gross weight in accordance with the limits of the 47G-3B-2A FAA Approved Helicopter Flight Manual Supplement dated February 11, 1972, as appropriate. The retirement times listed in NOTE 3 are not changed.

...END...